

REMARKS

Claims 7-20 are all the claims pending in the application; each of the claims has been rejected.

The claims have been amended to remove recitation of an array where a series of selected biomolecules is affixed “within” the phosphor layer.

The claims have also been amended to revert to the use of the term “comprising” in place of “consisting essentially of.” Support for this amended may be found in the claims as pending prior to the amendment of April 24, 2003.

No new matter has been added. Entry of the amendment is respectfully requested.

I. Rejection of Claims Under 35 U.S.C. §102

At paragraph 3 of the Office Action, the rejection of claims 7, 8, 10 and 13-15 under 35 U.S.C. §102(b) as being anticipated by Shiraishi et al. (USSN 4,617,468) has been maintained.

Briefly, the Examiner states that the amendment of the claims to recite a microarray “consisting essentially of” a stimuable phosphor sheet on a substrate and biomolecules arrayed and fixed on the sheet does not overcome the rejection over Shiraishi et al. The Examiner further states that she has interpreted the phrase “consisting essentially of” to be equivalent to “comprising” because neither the claims or the specification provides a clear indication of the identity of the basic and novel characteristics of the invention. The Examiner also states that Applicants have the burden of showing that the introduction of additional steps or components would materially change the characteristics of the invention.

In response, included herewith is an amendment to the claims such that they now only recite that the array of a series of selected biomolecules is affixed “within” the phosphor layer. Thus, the claims no longer include recitation of the array being affixed “on” the phosphor layer. The claims as amended require the arrays to be ones where the site of attachment of the biomolecule is within the phosphor layer (although the biomolecule could extend out of the phosphor layer from its point of affixation within the phosphor layer).

Shiraishi et al. does not teach such a microarray where the biomolecules are affixed within the phosphor layer. Indeed, Applicants note that, at lines 3 and 4 up from the bottom of page 4 of the outstanding Office Action, the Examiner states that “it is noted that Shiraishi et al. does not teach the biomolecules are affixed within the phosphor layer.”

The claims have also been amended to revert to the use of the term “comprising” in place of “consisting essentially of.” As the Examiner indicated in the outstanding Office Action, “consisting essentially of” is being interpreted as “comprising.” Thus, as use of “consisting essentially of” does not serve to overcome any of the outstanding prior art rejections, and the amendment of the claims require biomolecules to have a site of attachment within the phosphor layer addresses the §102 and §103 rejections (discussed below), Applicants are reverting back to the use of the term “comprising.”

As Shiraishi et al. does not teach each element of the claims as amended, Applicants respectfully assert that the cited claims are not anticipated by Shiraishi et al. and Applicants therefore request reconsideration and withdrawal of this rejection.

II. Rejection of Claims Under 35 U.S.C. §103

A. At paragraph 6 of the Office Action, the rejection of claims 11, 12 and 16-19 under 35 U.S.C. §103(a) as being unpatentable over Shiraishi et al., in view of Davis et al., has been maintained

The Examiner states that Shiraishi et al. teaches the method recited in the rejected claims, with the exception of teaching the labeling of a fixed biomolecule by hybridization with a labeled biomolecule. The Examiner contends that Davis et al. supplies the missing element of Shiraishi et al. and that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings for the expected benefit of reduced biohazard risk and increased biomolecule-specific detection.

In response, Applicants refer to their comments above regarding Shiraishi et al. and again note that the claims have been amended to recite that the biomolecules are affixed within the phosphor layer. Shiraishi et al. does not teach or suggest such an array, nor does Davis et al. cure the deficiencies of Shiraishi et al. Thus, neither Shiraishi et al. nor Davis et al., alone or in combination, teach or suggest the invention as claimed. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

B. At paragraph 8 of the Office Action, the rejection of claim 9 under 35 U.S.C. §103(a) as being unpatentable over Shiraishi et al., in view of Heller et al., has been maintained.

The Examiner states that Shiraishi et al. teaches the microarray recited in the rejected claim, with the exception of a protective layer comprising poly-l-lysine. The Examiner asserts

that Heller et al. teaches the use of poly-l-lysine, and that it would have been obvious to combine the two disclosures to arrive at the present invention.

In response, Applicants refer to their comments above regarding Shiraishi et al. and again note that the claims have been amended to recite that the biomolecules are affixed within the phosphor layer. Shiraishi et al. does not teach or suggest such an array, nor does Heller et al. cure the deficiencies of Shiraishi et al. Thus, neither Shiraishi et al. nor Heller et al., alone or in combination, teach or suggest the invention as claimed. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

C. At paragraph 10 of the Office Action, the rejection of claim 20 under 35 U.S.C. §103(a) as being unpatentable over Shiraishi et al., in view of Davis et al., as applied to claim 12, and further in view of Heller et al., has been maintained.

The Examiner states that Shiraishi et al. teaches the method recited in the rejected claim, with the exception of a protective layer comprising poly-l-lysine. The Examiner asserts that Heller et al. teaches the use of poly-l-lysine, and that it would have been obvious to combine the two disclosures to arrive at the present invention.

The Examiner also states that while Shiraishi et al. fails to teach the labeling of a fixed biomolecule by hybridization with a labeled biomolecule, Davis et al. supplies the missing element and that it would have been obvious to combine the teachings of the two disclosures to arrive at the present invention.

In response, Applicants refer to their comments above regarding Shiraishi et al. and again note that the claims have been amended to recite that the biomolecules are affixed within the phosphor layer. Shiraishi et al. does not teach or suggest such an array, nor does Davis et al. or

Heller et al. cure the deficiencies of Shiraishi et al. Thus, none of Shiraishi et al., Davis et al. and Heller et al., alone or in combination, teach or suggest the invention as claimed. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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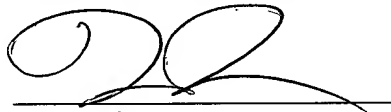
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